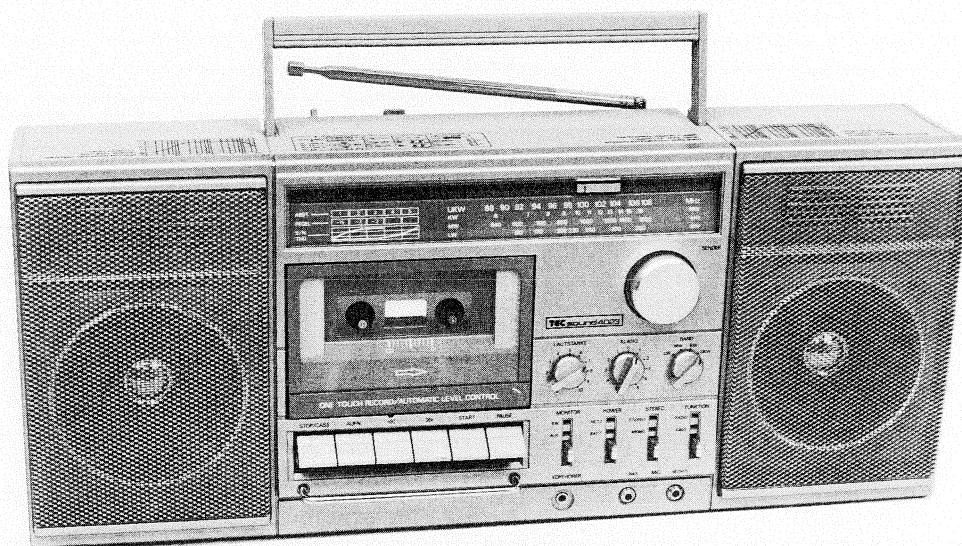


Technische Warenservice GmbH

TEC

Service-Unterlagen



SOUND 4023

Service-Nr.: 08-063

SOUND 4023 S

Service-Nr.: 08-073

Zerlegen des Gerätes

TO Remove Back Cabinet

1. Remove battery cover.
2. Remove 6 screws (A) from back cabinet. (See figure 1)
3. Remove back cabinet.

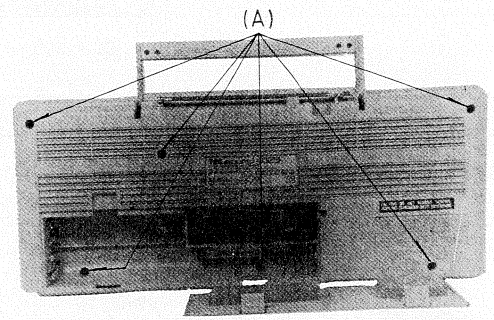


Figure 1

TO Remove Front Cabinet

1. Remove 4 knobs (B) and 9 screws (C) from chassis. (See figure 2,3)
2. Remove front cabinet.

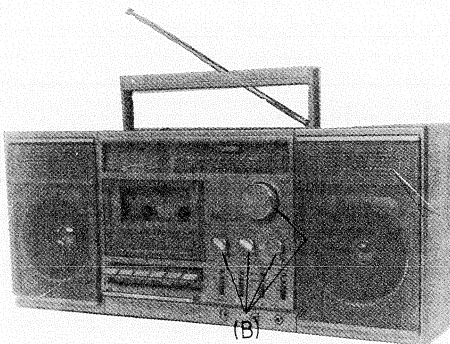


Figure 2

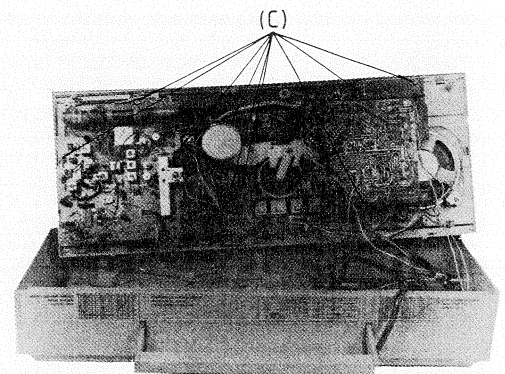


Figure 3

Dial Stringing

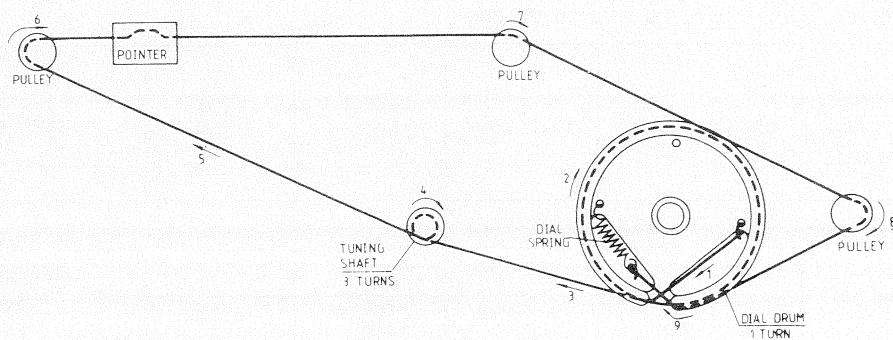


Figure 4

Notes:

1. Point 1 and 9 are start and termination of dial stringing.
2. Tuning capacitor fully closed.
3. Length of dial string: 900 m/m (35.5")

Abgleichanweisung

EQUIPMENT REQUIRED

1. RF SIGNAL GENERATOR
2. AC VTVM

GENERAL

1. SIGNAL INPUT LEVEL MUST BE AS LOW AS POSSIBLE TO AVOID SATURATION.
2. VOLUME AND TONE CONTROLS AT MAXIMUM.
3. STANDARD MODULATION IS 1,000 HZ AT 30% AMPLITUDE MODULATION.
4. CONNECT 4 OHMS LOAD ACROSS SPEAKER JACK.

STEP	CONNECT SIGNAL SOURCE TO-	CONNECT OUTPUT INDICATOR TO-	SET SIGNAL GENERATOR TO-	SET RADIO DIAL TO-	ADJUST-	ADJUST FOR-
MW IF/RF ALIGNMENT SET FUNCTION SWITCH TO MW						
1	LOOP OF SEVERAL TURNS OF WIRE CONNECTED ACROSS GENERATOR LEADS PLACE LOOP CLOSE TO THE AM ANTENNA	AC VTVM ACROSS SPEAKER JACK L OR R	455 KHz	LOWEST FREQ.	T203,204	MAXIMUM OUTPUT ON VTVM
2			520 KHz	LOWEST FREQ.	L109	
3			1650 KHz	HIGHEST FREQ.	TC107	
4	REPEAT STEPS 2 AND 3 FOR OPTIMUM SENSITIVITY					
5	SAME AS ABOVE	SAME AS ABOVE	600 KHz	TUNE FOR SIGNAL	L106 (MW)	SAME AS ABOVE
6			1400 KHz		TC104	
7	REPEAT STEPS 5 AND 6 FOR OPTIMUM SENSITIVITY					
LW IF/RF ALIGNMENT SET FUNCTION SWITCH TO LW						
1	SAME AS ABOVE	SAME AS ABOVE	135 KHz	LOWEST FREQ.	L108	SAME AS ABOVE
2			370 KHz	HIGHEST FREQ.	TC106	
3	REPEAT STEPS 1 AND 2 FOR OPTIMUM SENSITIVITY					
4	SAME AS ABOVE	SAME AS ABOVE	180 KHz	TUNE FOR SIGNAL	L106 (LW)	SAME AS ABOVE
5			320 KHz		TC103	
6	REPEAT 4 AND 5 FOR OPTIMUM SENSITIVITY					
SW IF/RF ALIGNMENT SET FUNCTION SWITCH TO SW						
1	SAME AS ABOVE	SAME AS ABOVE	5.8 MHz	LOWEST FREQ.	L110	SAME AS ABOVE
2			17 MHz	HIGHEST FREQ.	TC108	
3	REPEAT STEPS 1 AND 2 FOR OPTIMUM SENSITIVITY					
4	SAME AS ABOVE	SAME AS ABOVE	7 MHz	TUNE FOR SIGNAL	L107	SAME AS ABOVE
5			15 MHz		TC105	
6	REPEAT STEPS 4 AND 5 FOR OPTIMUM SENSITIVITY					
FM IF/RF ALIGNMENT SET FUNCTION SWITCH TO FM						
1	PLACE GENERATOR LEADS ACROSS FM ANTENNA TERMINALS	SAME AS ABOVE	10.7 MHz	LOWEST FREQ.	T201	SAME AS ABOVE
2					T202	
3	REPEAT STEPS 1 AND 2 FOR OPTIMUM SENSITIVITY					
4	SAME AS ABOVE	AC VTVM ACROSS SPEAKER JACK L OR R	87 MHz	LOWEST FREQ.	L104	MAXIMUM OUTPUT ON VTVM
5			109 MHz	HIGHEST FREQ.	TC102	
6	REPEAT STEPS 4 AND 5 FOR OPTIMUM SENSITIVITY					
7	SAME AS ABOVE	SAME AS ABOVE	90 MHz	TUNE FOR SIGNAL	L102	SAME AS ABOVE
8			106 MHz		TC101	
9	REPEAT STEPS 7 AND 8 FOR OPTIMUM SENSITIVITY					

FM-Stereo Alignment

EQUIPMENT REQUIRED

Frequency counter

PRELIMINARIES

Set function switch to FM auto

ITEM	SIGNAL GENERATOR FREQUENCY	OUTPUT INDICATOR	DIAL SETTING	ASJUST-	ADJUST FOR-
Adjustment of VCO frequency	98 MHz	Freq. counter across pin 12 of IC301 and G.	98 MHz	SFR301 10KB	19 kHz

Cassette Electrical Adjustments

INSTRUMENT REQUIRED

VTVM, AM OSC, ATTENUATOR, OSCILLOSCOPE, DISTORTION METER.

ITEM	SIGNAL SOURCE	OUTPUT INDICATER	MODE	ADJUSTEMENT	SPECIFICATION	REMARKS
Head angle adjustment	Test tape 8 kHz	VTVM to output terminal See fig.6	Playback	Head angle adjustment Screw ① See fig.	Maximum	—
Recording current	1 KHz - 66dB (0.5 mV) to Con. mic.	See fig.7	Recording	—	Normal: $0.5 \pm 0.1 \text{ mV}$	Record VR minimum (Stop bias OSC B+)

Tuner P C Board

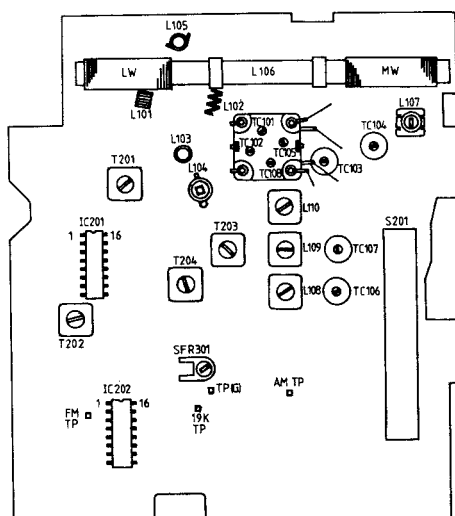


Figure 5

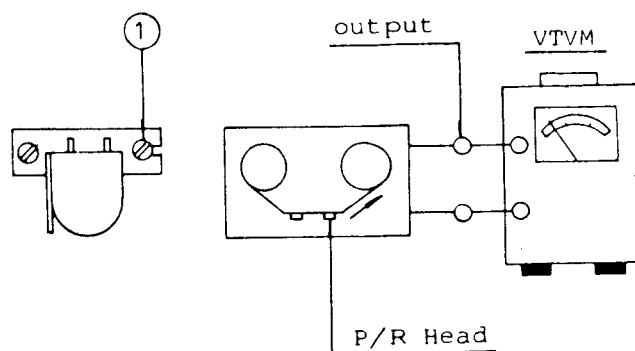


Figure 6

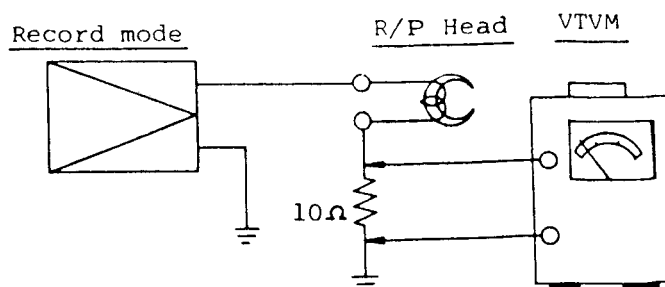
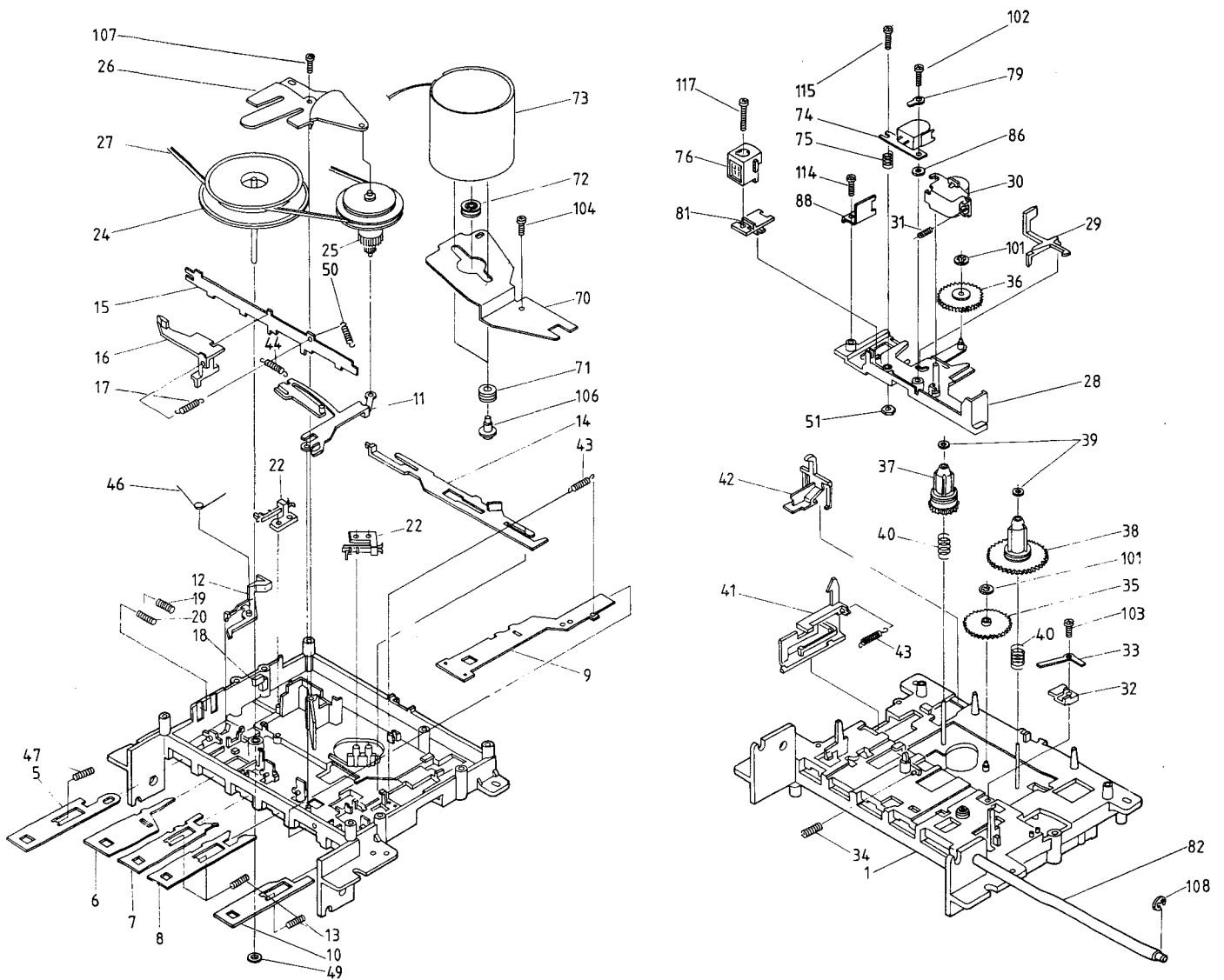


Figure 7

Explosionszeichnung Kassetten-Mechanik

TYPE NO: PM-40-18 PART NO: 4380401460 W/O: COUNTER



TEC Rostocker Straße 8 6200 Wiesb.-Bierstadt Tel. 061 21/5610 31		Ersatzteil Preisliste		Liste besteht aus 4 Blatt Blatt Nr. 2
		Geräteart:	Stereo-Radiorecorder	
		Gerätename:	Sound 4023	Modell-Nr.: 08-063
				Ausgabe Datum 3.05.82
Teile-Nr.	Pos.-Nr.	Deutsch	Englisch	Preis-Code
08-063-053	M13	Kopfhörerplatine, bestückt	Headphone PCB Assy	B 2
054	M15	Schalterplatine, bestückt	Switch PCB Assy	Q 2
055	M27	Motorplatine, bestückt	Motor PCB Assy	Q 1
056	M36	LED-Platine, bestückt	LED PCB Assy	R 2
057	M37	Hauptplatine, bestückt	Main PCB Assy	H 3
058	M38	Senderwahlplatine, bestückt	Tuning PCB Assy	V 3
059	M39	Reglerplatine, bestückt	Volume PCB Assy	O 2
060	M26	Halterung f. Hauptplatine	Amp. PCB Bracket	B 1
	S201	Wellenschalter	Band Switch HRW 0150-01-200	K 2
GB06-0231	S301	Schiebeschalter, Funktion	Slide Switch, Function	O 1
GB06-0232	S302	Schiebeschalter, Netz/Mon./Mo-St.	Slide Switch, Mode/Mon./Power	N 1
GE01-0043	S401	Schiebeschalter, Aufn./Wiederg.	Slide Switch, Rec/Play 12C-2P	E 2
IA52-0008	VR501	Regler, Lautstärke, 10K Ohm x 2	VR GM8ORCK 381-10KAx2	F 2
IA52-0007	VR502	Regler, Klang, 10K Ohm x 2	VR GM3ORCK 454-10KBx2	F 2
	SFR301	Einstellregler 10K Ohm	Semifixed VR 10KB 8ø	C 1
HC01-0007	J502	DIN-Buchse	DIN Jack	Q 1
HD02-0013	J401,2	Mikrofonbuchse	Mic Jack 3.5ø	G 1
08-063-071	J501	Kopfhörerbuchse	Headphone Jack 3.5ø	P 1
BA01-0007	E 7	Netzleitung, Eurostecker, blank	AC Cord VDE Type	P 1
EA01-0088	E 3	Stabantenne	Rod Antenna	O 2
EB02-0006	L106	Ferritantenne m. Halter	LW/MW Bar w/Holder	D 1
08-063-075	L107	KW-Antennenspule	SW Antenna Coil	D 1
076	L101	UKW-Antennenspule	FM Antenna Coil	A 1
077	L102	UKW-HF-Spule	FM RF Coil	A 1
078	L103,5	Fangspule	Trap Coil	A 1
079	L104	UKW-Oszillatorspule	FM OSC Coil	A 1
080	L108	LW-Oszillatorspule	LW OSC Coil	C 1
081	L109	MW-Oszillatorspule	MW OSC Coil	C 1
082	L110	KW-Oszillatorspule	SW OSC Coil	C 1
083	L601	Versteilerungsspule 4.7mH	Peaking Coil 4.7mH	C 1
084	T201	UKW-Filter 09A-1206A	FM IFT 09A-1206A	D 1
085	T202	UKW-Filter C02-3515B	FM IFT C02-3515B	D 1
086	T203	MW-Filter C02-3576B	AM IFT C02-3576B	C 1
087	T204	MW-Filter C02-3516	AM IFT C02-3516	C 1
088	CF201	Keramikfilter 10.7mA	Ceramic Filter 10.7MA	E 1
089	CF202	Keramikfilter SFU-460B	Ceramic Filter SFU-460B	E 1
090	T103,4,6,7	Trimmkondensator 10P	Trimmer 10P	C 1
091				
092		Kopfhörer kpl.	Headphone	E 3
093				
094				
095		Bedienungsanleitung	Instruction Book	E 1
096		Außenkarton	Gift Box	C 2
097		Styropor-Verpackung R	Pack Case R	D 1
098		Styropor-Verpackung L	Pack Case L	D 1
099		Styropor-Behälter f. Kopfhörer	Packing Case (Headphone use)	F 1
100		Kartonplatte f. Styr-Behälter	Packing Paper(Headphone use)	B 1

Bei Ersatzteil-Bestellungen bitte kompl. Bestell-Nr., bestehend aus

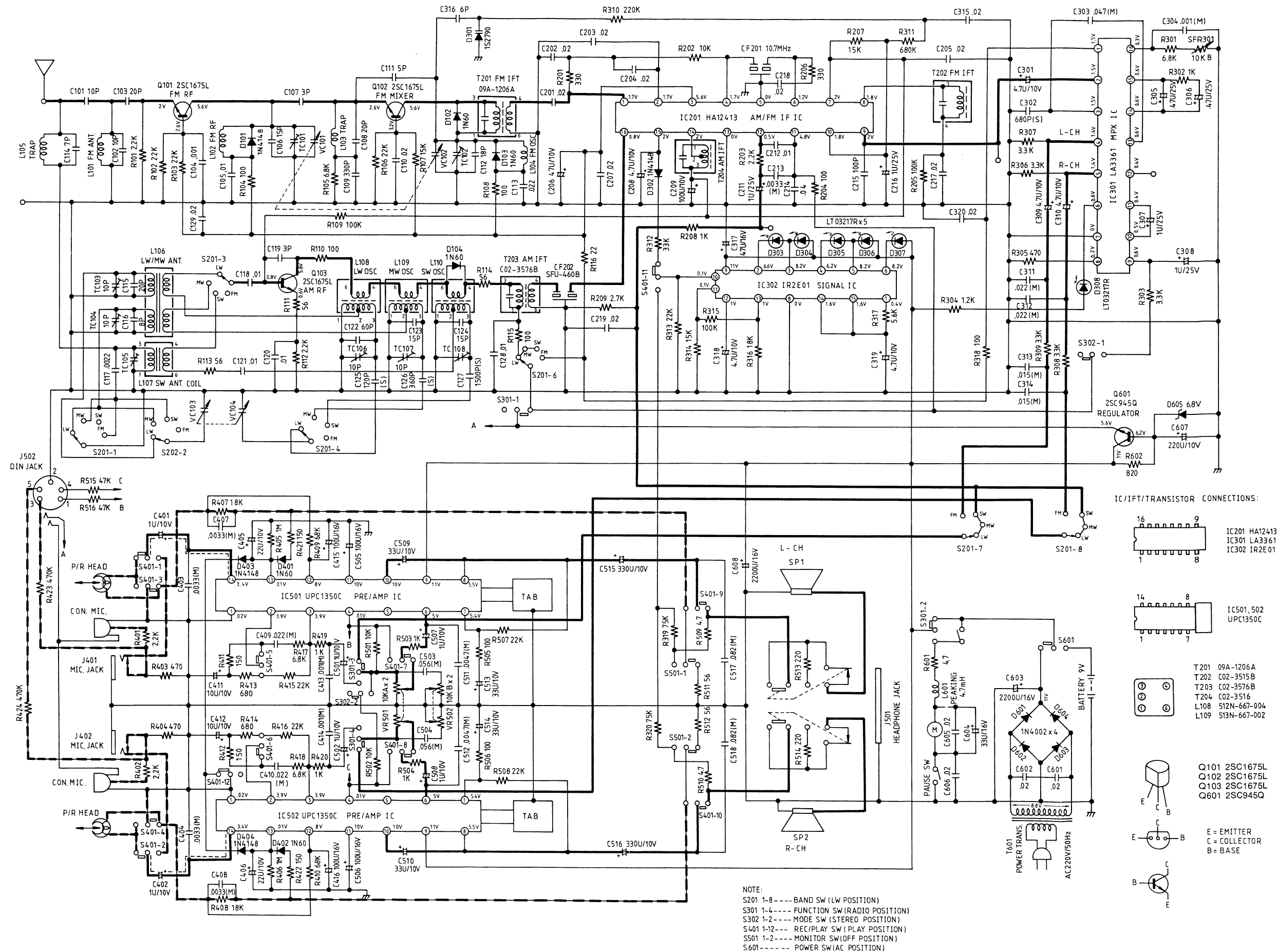
Modell-Nr. + Teile-Nr., angeben.

Beispiel:

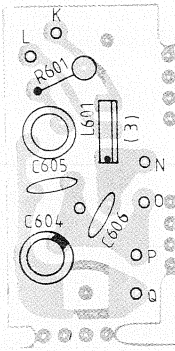
Modell-Nr. + Teile-Nr.

08-063

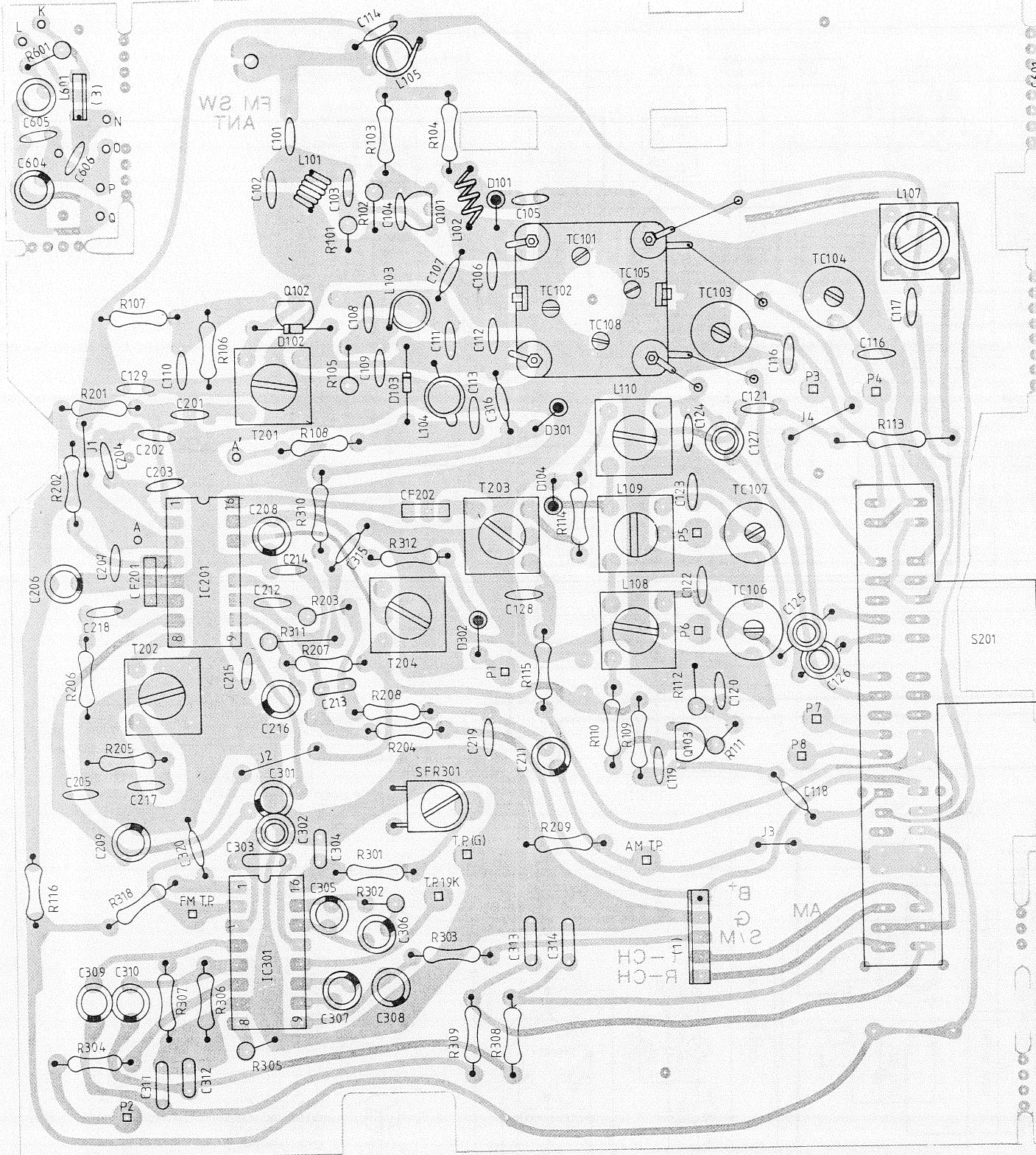
Schaltplan



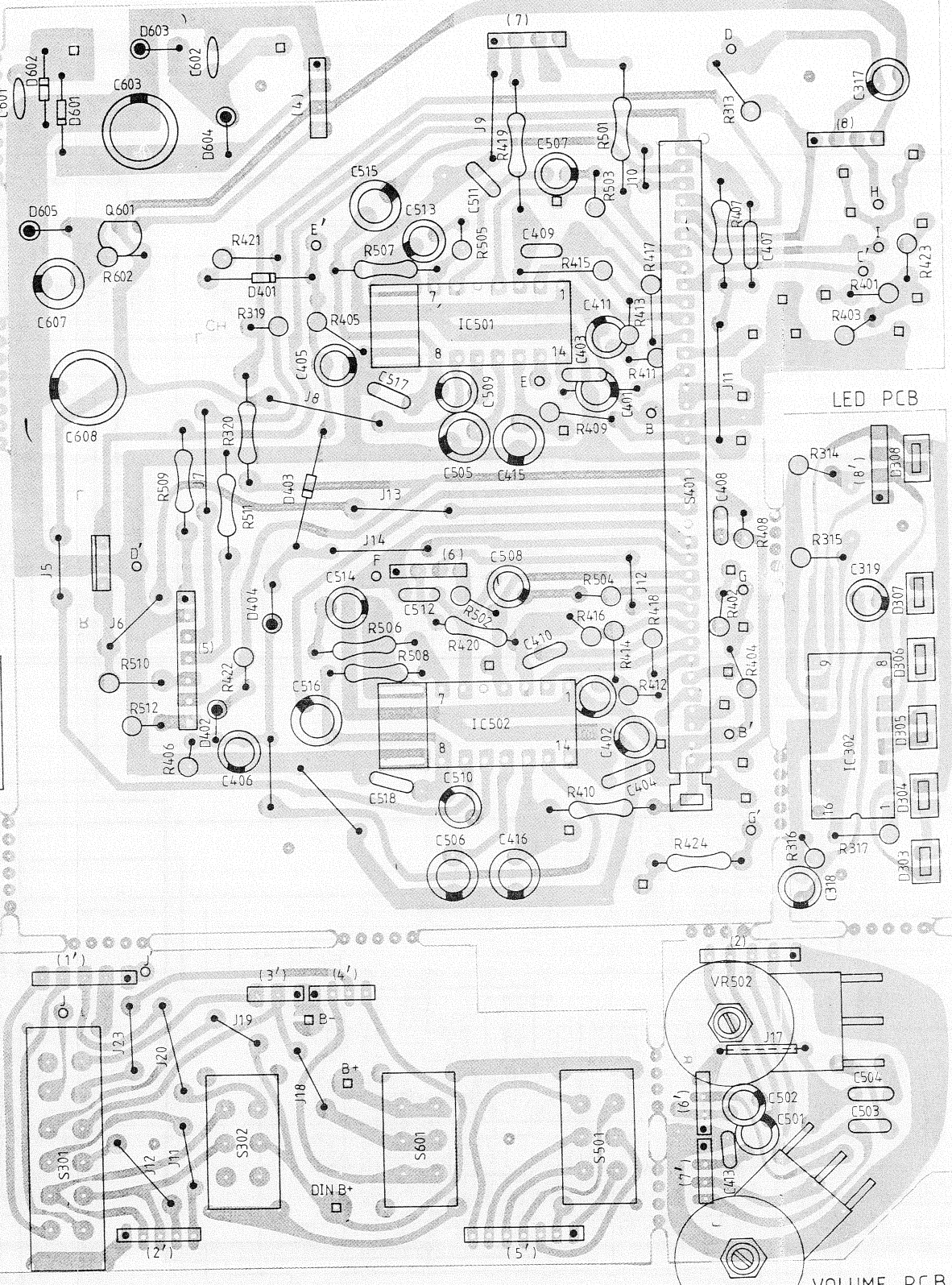
MOTOR PCB



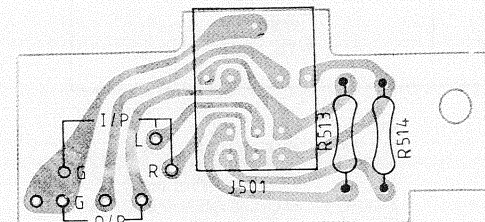
TUNING PCB



MAIN PCB



HEADPHONE JACK PCB

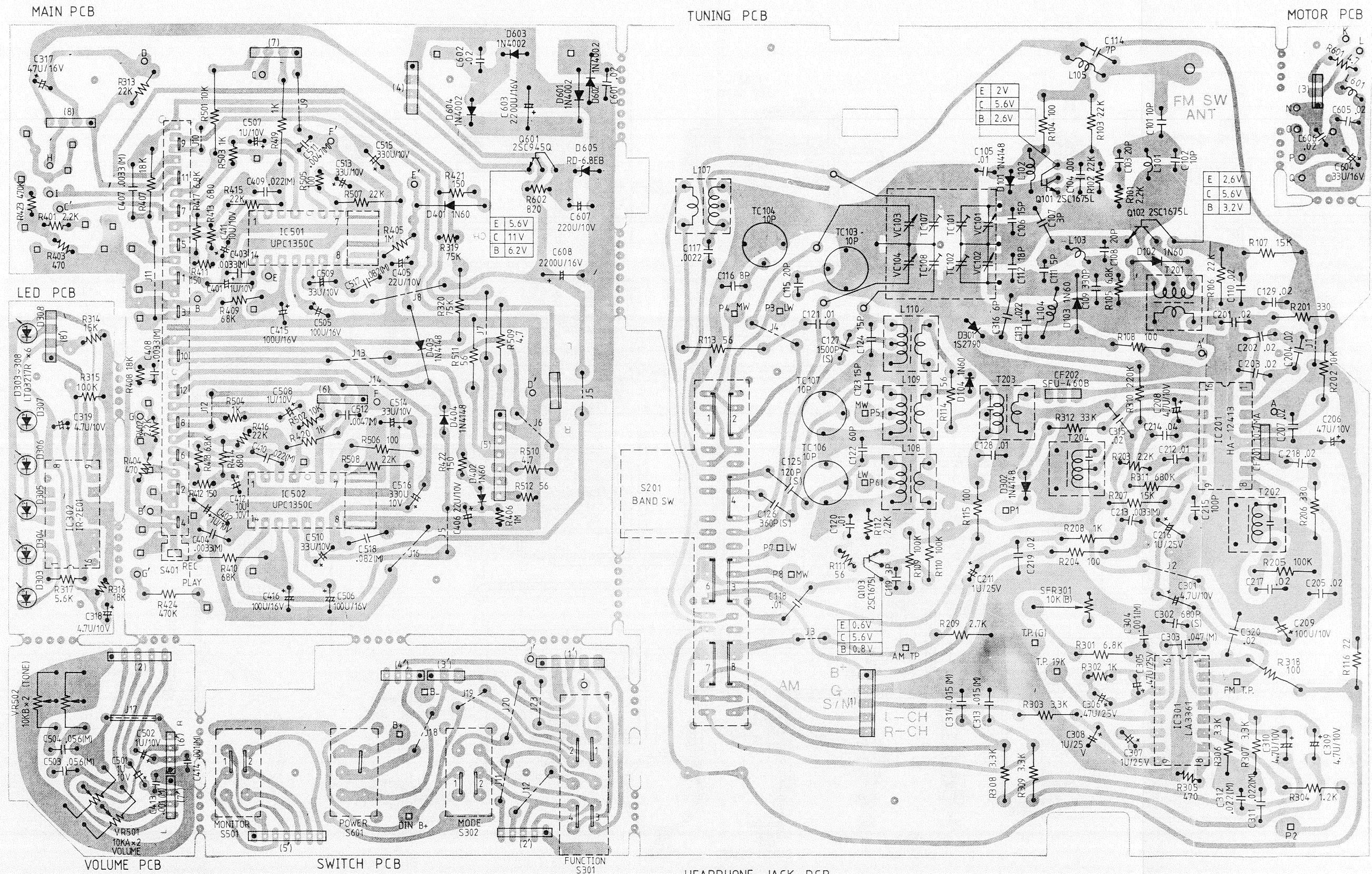


SWITCH PCB

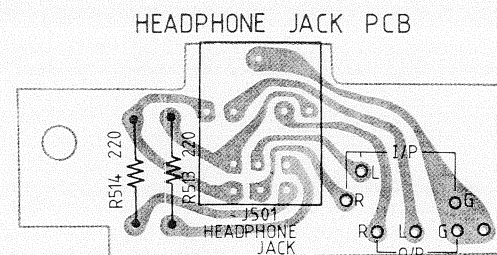


VOLUME PCB



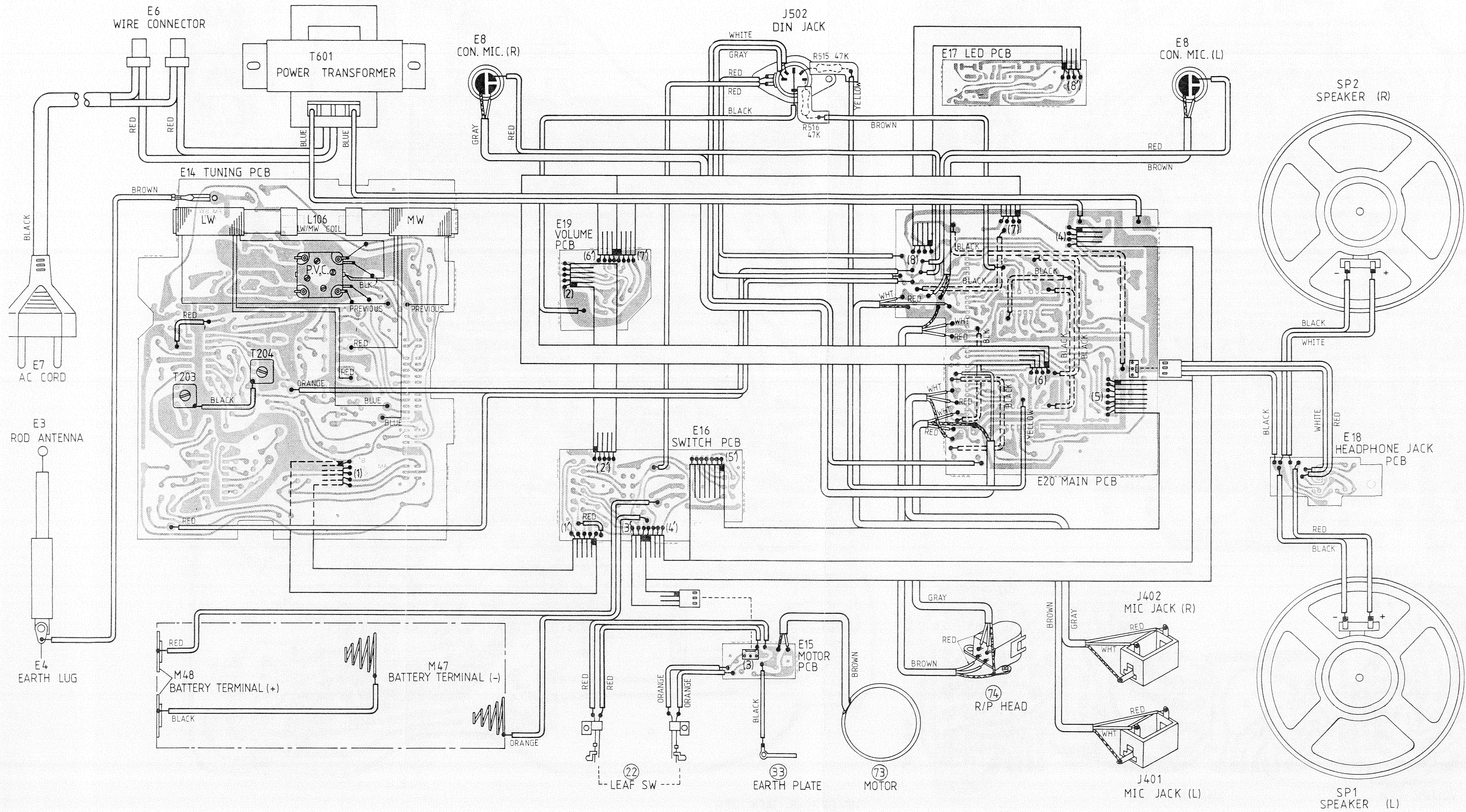


NO	TYPE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IC201	HA-12413	1.7V	1.7V	5.6V	1.7V	0V	1.2V	2V	1.8V	2V	1.8V	4.8V	0.5V	0V	2V	2V	0.8V
IC301	LA-3361	1.5V	1.5V	1.5V	1.4V	1.4V	0.6V	0V	0.2V	0.6V	0.5V	0.4V	0.4V	0.6V	0.6V	0.3V	
IC302	IR-2E01	0.4V	6.6V	8.2V	6.2V	8.2V	8.2V	—	0V	11V	0.1V	0.1V	1V	1V	1.6V	1.6V	—
IC501	UPC-1350C	0.02V	3.9V	3.9V	0.01V	—	5V	5.4V	5.5V	11V	10V	10V	8V	0.01V	3.4V	—	—
IC502	UPC-1350C	0.02V	3.9V	3.9V	0.01V	—	5V	5.4V	5.5V	11V	10V	10V	8V	0.01V	3.4V	—	—

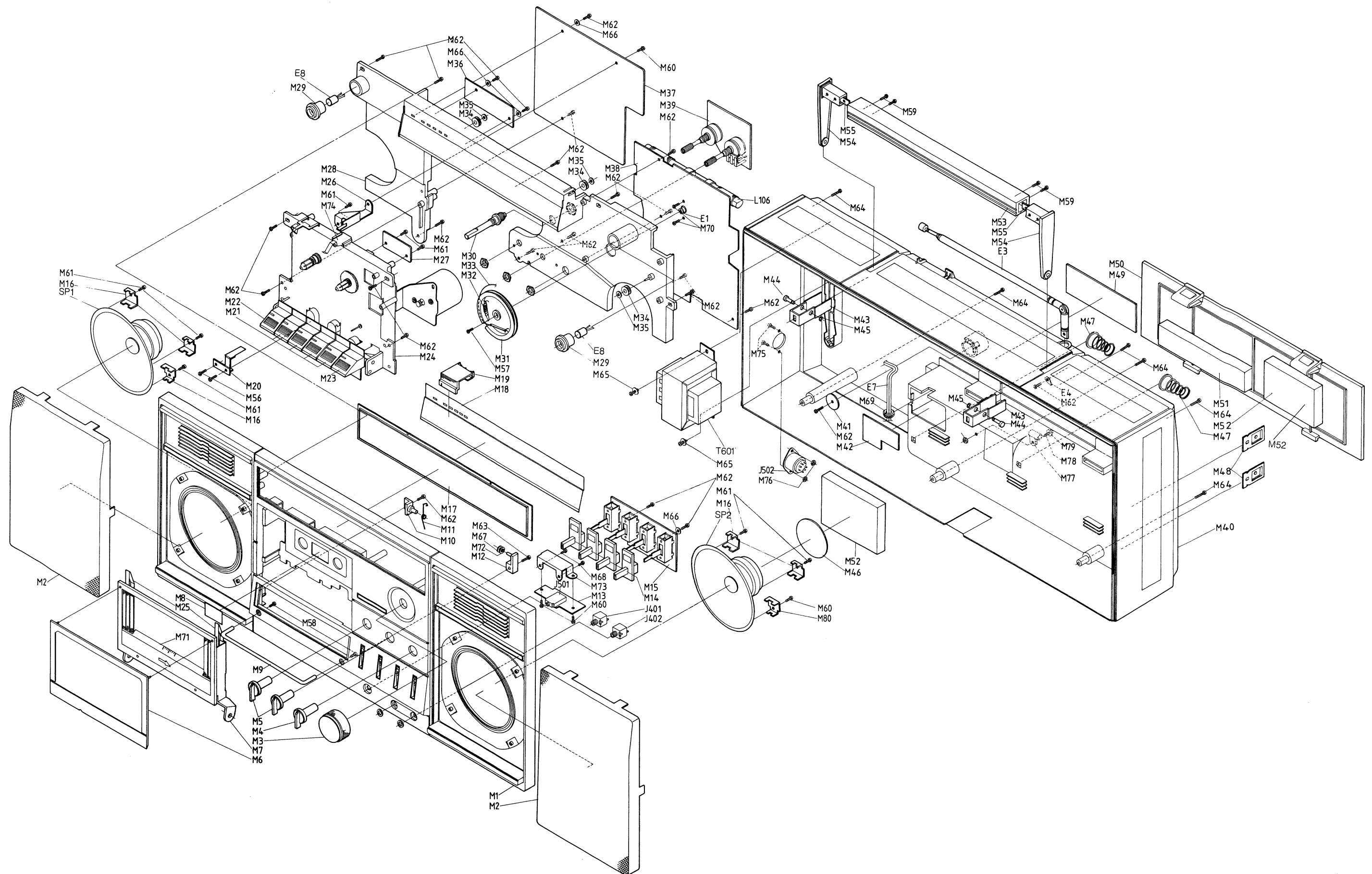


NOTE:
VALUES INDICATED IN ARE DC VOLTAGES BETWEEN
THE CHASSIS AND ELECTRICAL PARTS.

Verdrahtungsplan



08-063



TEC Rostocker Straße 8 6200 Wiesb.-Bierstadt Tel. 06121/561031		Ersatzteil Preisliste		Liste besteht aus 4 Blatt Blatt Nr. 1	
		Geräteart:	Stereo-Radiorecorder	Ausgabe Datum 3.05.82	
		Gerätename:	Modell-Nr.:		
		Sound 4023	08-063		
Teile-Nr.	Pos.-Nr.	Deutsch	Englisch	Preis-Code	
08-063-001	M 1	Gehäusevorderteil	Front Cabinet	X 2	
002	M40	Gehäuserückteil	Back Cabinet	Z 2	
003	M 2	Lautsprechergrill A	Speaker Grill A	Y 1	
004	M 6	Kassettenfachfenster	Cassette Lens	M 1	
005	M 7	Kassettenfachklappe	Cassette Door	K 1	
006	M 8	Kassettenfachspiegel	Cassette Mirror	A 1	
007	M12	Halterung f. Kassettenfach A	Cassette Holder A	A 1	
008	M10	Halterung f. Kassettenfach B	Cassette Holder B	A 1	
009	M11	Öffnungsfeder f. Kassettenf-Kl.	Cassette Up Spring	A 1	
010	M71	Abdeckung f. Kassettenfachkl.	Cassette Overlay	C 1	
011	M 9	Metallstange	Button Bar	F 1	
012	M17	Skalenfenster	Dial Window	L 1	
013	M18	Skala	Dial Scale	H 1	
014	M19	Skalenzeiger	Pointer	D 1	
015	M31	Skalenrad	Dial Drum	D 1	
016	M32	Feder f. Skalenrad	Dial Spring	A 1	
017	M34	Skalenseilrolle	Pulley	A 1	
018	M30	Senderwahlachse	Tuning Shaft Assy	K 1	
019	M50	Abdeckung f. Batteriefach	Battery Cover	K 1	
020	M51	Polster f. Batteriefach	Battery Sponge 100x23x12t	B 1	
021	M52	Polster f. Batt-F. u. Lautspr.	Battery Sponge 60x40x12t	B 1	
022	M47	Batteriekontakt (-)	Battery Terminal (-)	A 1	
023	M48	Batteriekontakt (+)	Battery Terminal (+)	B 1	
024	M74	Andruckfeder f. Kassette	Cassette Holder	B 1	
025	M25	Arretierungsfeder f. Kass-F-Kl.	Tape Spring	B 1	
026	M53	Handgriff	Handle	E 1	
027	M54	Seitenteil f. Handgriff	Handle Holder	C 1	
028	M55	Lochplatte f. Seitenteil, Handgr.	Handle Holder Bracket	A 1	
029	M43	Befestigung f. Handgriff	Handle Bracket	B 1	
030	M44	Stift f. Befestigung, Handgriff	Handle Shaft	B 1	
031	M49	Typenschild	Back Overlay	B 1	
032		Aufkleber, Serien-Nr.	Serial No. Label	A 1	
033	M 3	Knopf, Senderwahl	Tuning Knob Assy	G 1	
034	M 4	Knopf, Wellenschalter	Function Knob	D 1	
035	M 5	Knopf, Lautstärke/Klang	VR Knob	D 1	
036	M14	Knopf, Schiebeschalter	Slide Switch Knob	D 1	
037	M21	Taste, Kassettenmechanik	Cassette Button Knob	D 1	
038	M22	Taste, Stop/Kassettenauswurf	Stop/Eject Button Knob	D 1	
039	M23	Taste, Pause	Pause Button Knob	D 1	
040	M20	Betätigungsfeder f. A/W-Schalt.	Record Spring Assy	C 1	
041	M28	Montagerahmen	Main Chassis	W 1	
DA01-0042	SP1,2	Lautsprecher 4 Ohm 1.5W	Speaker 3.5"	G 2	
08-063-043	M16	Halterung f. Lautsprecher	Speaker Holder	A 1	
044	M80	Halterung B f. Lautsprecher	Speaker Holder B	A 1	
BF01-0028	E 8	Einbaumikrofon	Condenser Microphone	B 2	
08-063-046	M29	Halterung f. Einbaumikrofon	Mic Holder	A 1	
047	E 1	Drehkondensator QT-2217-1528-0	PVC QT-2217-1528-0	G 2	
048	T601	Netztransformator	Power Trans. VDE Type	O 2	
049	M42	Abdeckg. f. Netzkabeldurchführg.	Fiber Cover	B 1	

Bei Ersatzteil-Bestellungen bitte kompl. Bestell-Nr., bestehend aus
Modell-Nr. + Teile-Nr., angeben.
Beispiel: 08-063 - 012 = Skalenfenster
Modell-Nr. + Teile-Nr.
08-063

[illegible]